

## WHAT IS CLAIMED IS:

1           1.    For use in a digital video recorder, an apparatus for  
2 performing time-shifted viewing of an incoming television program  
3 being received by said digital video recorder, the apparatus  
4 comprising:

5               a controller capable of creating a data file having a  
6 defined maximum size on a storage disk of said digital video  
7 recorder and capable of causing video data associated with said  
8 incoming television program to be stored sequentially in said data  
9 file from a first location to an Nth location, wherein said  
10 controller, in response to a determination that said video data has  
11 been stored in said Nth location, causes a next received video data  
12 to be stored in said first location.

1           2.    The apparatus as set forth in Claim 1 wherein said  
2 controller uses a write pointer to cause said video data to be  
3 stored sequentially in said data file from said first location to  
4 said Nth location.

1           3.    The apparatus as set forth in Claim 2 wherein said  
2   controller updates said write pointer each time said video data is  
3   stored to a location in said data file to thereby cause said video  
4   data to be stored sequentially in said data file from said first  
5   location to said Nth location.

1           4.    The apparatus as set forth in Claim 3 wherein said  
2   controller determines that said video data has been stored in said  
3   Nth location when said write pointer is equal to a value associated  
4   with said defined maximum size.

1           5.    The apparatus as set forth in Claim 4 wherein said  
2   controller causes said next received video data to be stored in  
3   said first location by resetting said write pointer to a value  
4   associated with said first memory location.

1           6.    The apparatus as set forth in Claim 1 wherein said  
2   controller is further capable of causing stored video data to be  
3   retrieved sequentially from said data file from said first location  
4   to said Nth location.

1           7.    The apparatus as set forth in Claim 6 wherein said  
2 controller, in response to a determination that said stored video  
3 data has been retrieved from said Nth location, causes a next  
4 stored video data to be retrieved from said first location.

1           8.    The apparatus as set forth in Claim 7 wherein said  
2 controller uses a read pointer to cause said stored video data to  
3 be retrieved sequentially from said data file from said first  
4 location to said Nth location.

1           9.    The apparatus as set forth in Claim 8 wherein said  
2 controller updates said read pointer each time said stored video  
3 data is retrieved from a location in said data file to thereby  
4 cause said stored video data to be retrieved sequentially from said  
5 data file from said first location to said Nth location.

1           10. A digital video recorder capable of time-shifted viewing  
2 of an incoming television program being received by said digital  
3 video recorder, said digital video recorder comprising:

4           a video processor capable of receiving said incoming  
5 television program and converting said incoming television program  
6 to a baseband video signal capable of being displayed on a  
7 television set coupled to said digital video recorder;

8           a storage disk for storing said incoming television  
9 program; and

10           a controller capable of creating on said storage disk a  
11 data file having a defined maximum size and capable of causing  
12 video data associated with said incoming television program to be  
13 stored sequentially in said data file from a first location to an  
14 Nth location, wherein said controller, in response to a  
15 determination that said video data has been stored in said Nth  
16 location, causes a next received video data to be stored in said  
17 first location.

1           11. The digital video recorder as set forth in Claim 10  
2 wherein said controller uses a write pointer to cause said video  
3 data to be stored sequentially in said data file from said first  
4 location to said Nth location.

1           12. The digital video recorder as set forth in Claim 11  
2 wherein said controller updates said write pointer each time said  
3 video data is stored to a location in said data file to thereby  
4 cause said video data to be stored sequentially in said data file  
5 from said first location to said Nth location.

1           13. The digital video recorder as set forth in Claim 12  
2 wherein said controller determines that said video data has been  
3 stored in said Nth location when said write pointer is equal to a  
4 value associated with said defined maximum size.

1           14. The digital video recorder as set forth in Claim 13  
2 wherein said controller causes said next received video data to be  
3 stored in said first location by resetting said write pointer to a  
4 value associated with said first memory location.

1           15. The digital video recorder as set forth in Claim 10  
2 wherein said controller is further capable of causing stored video  
3 data to be retrieved sequentially from said data file from said  
4 first location to said Nth location.

1           16. The digital video recorder as set forth in Claim 15  
2 wherein said controller, in response to a determination that said  
3 stored video data has been retrieved from said Nth location, causes  
4 a next stored video data to be retrieved from said first location.

1           17. The digital video recorder as set forth in Claim 16  
2 wherein said controller uses a read pointer to cause said stored  
3 video data to be retrieved sequentially from said data file from  
4 said first location to said Nth location.

1           18. The digital video recorder as set forth in Claim 17  
2 wherein said controller updates said read pointer each time said  
3 stored video data is retrieved from a location in said data file to  
4 thereby cause said stored video data to be retrieved sequentially  
5 from said data file from said first location to said Nth location.

1        19. For use in a digital video recorder, a method for  
2 performing time-shifted viewing of an incoming television program  
3 being received by the digital video recorder, the method comprising  
4 the steps of:

5            in response to receipt of a pause command, creating a  
6 data file having a defined maximum size on a storage disk of the  
7 digital video recorder;

8            storing video data from the incoming television program  
9 in the data file sequentially from a first location to an Nth  
10 location;

11           determining whether video data has been stored in the Nth  
12 location; and

13           in response to a determination that video data has been  
14 stored in the Nth location, storing a next received video data in  
15 the first location.

1        20. The method as set forth in Claim 19 further comprising  
2 the step of retrieving stored video data sequentially from the data  
3 file from the first location to the Nth location.

1           21. The method as set forth in Claim 20 further comprising  
2 the steps of:  
3           determining whether stored video data has been retrieved  
4 from the Nth location; and  
5           in response to a determination that video data has been  
6 retrieved from the Nth location retrieving a next stored video data  
7 from the first location.

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